# GOVERNMENT OF INDIA
# EARTH SCIENCES
# LOK SABHA

STARRED QUESTION NO:178
ANSWERED ON:11.03.2008
SALINE WATER TREATMENT PLANTS
Barad Shri Jashubhai Dhanabhai

**Will the Minister of EARTH SCIENCES be pleased to state:**

(a) whether the Government proposes to set up saline water treatment plants in the coastal areas for providing drinking water to the people;

(b) if so, whether the sites for the purpose have been identified;

(c) if so, the details thereof; and

(d) the progress made so far?

## Answer

MINISTER OF SCIENCE AND TECHNOLOGYAND MINISTER OF EARTH SCIENCES(SHRI KAPIL SIBAL)

(a) Yes, Sir.The National Institute of Ocean Technology (NIOT) an autonomous body of the Ministry of Earth Sciences has indigenously designed developed and demonstrated the desalination technology for conversion of sea water into potable water based on Low Temperature Thermal Desalination System (LTTD). The LTTD is a process under which the warm surface sea water is flash evaporated at low pressure and the vapour is condensed with cold deep sea water. After conducting several experiments in the Laboratory (500 Liter per day capacity & 5000 Liter per day capacity), a LTTD plant with a capacity of 1 lakh liter per day production of fresh water was developed and installed in May 2005, a t Kavaratti, Lakshadweep Island. This plant was handed over to Lakshadweep Administration in April 2006 for operation and maintenance. The plant has been effectively working since then and catering significantly to the needs of the population of Kavaratti.This LTTD plant has produced over 6 crore litre of water so far.The Lakshadweep Islands have the advantage of ocean depth (~500 m) available within few hundred meters from the coast and hence, land based plants are possible.

As the Indian mainland doesn't have the required depths near the coast, a barge mounted 10-lakh liter per day capacity plant was developed and demonstrated about 40 kms off Chennai in April 2007. The barge based demonstration plant was successfully run continuously for over a period of several weeks.However, the barge based technology needs further improvement for long term service under dynamic ocean conditions. Currently, the Ministry in the process of formulating a project for development of 1 crore liter per day capacity barge based plant. After the demonstration of these higher capacity plants, the number of plants could be replicated.

b) to (d) Yes, Sir. As per the request by the Administration, Lakshadweep, NIOT is in the process of setting up of a set of 6 desalination plants in the other islands of Lakshadweep, which is being executed. These land based plants of 1 lakh liter per day capacity are proposed to be set up in the islands of Lakshadweep, one each in Agatti, Androtti, Minicoy, Amini, Kiltan and Chelat in 2 phases.Towards this, a global tender is being floated to execute the project.

The Government of Tamilnadu is also making efforts to establish a 100 MLD Reverse Osmosis desalination plant in Chennai through foreign participation.